Index to Volume 16

Authors

A

Abbasi, S.A. 172
Ahmad, Aman A. 6
Ahmed, Shabid 105
Allen, P.T. 89
Anderson, A. 18
Anwar, Zaheer 105

B

Batres, Rafael 37
Basu, Prabir K. 160
Bendixen, Lisa 32
Bodman, Glenn T. 94, 198

C

Chervin, Sima 94, 198
Chopp, Robert 25
Corriou, J.P. 231
Crowl, Daniel A. 1

D

Darby, Ron 80
Davies, Ray. 165
Dowell, A.M. III 132

E

Edwards, Victor H. 147
Endsley, Mica R. 126
Evon, Skip E. 198

F

Farkas, Lázlió. 237
Farquharson, John. 219
Ferjencík, Milos 117
Fisher, H.G. 185
Flamberg, Stephanie A. 225
Freeman, Raymond A. 14, 32
Fründt, Jens 57

G

Garzia, Henry W. 50

H

Hall, Donal S. 251
Hendershot, Dennis C. 32, 78, 132
Hofelich, T.C. 121
Howard, Walter B. 147, 170

K

Kaber, David B. 126
Khan, Faisal I. 172
Kirmani, Liftikbar A. 105
Kleffner, Joseph W. 14
Koch, T.A. 23
Krause, K.R. 23

L

Latta, David R. 140
Laurent, A. 231
Lee, Sanggyu 37
Leggett, David J. 8
Losee, P.E. 251
Lu, Ming Liang 37
Lutz, William K. 86

M

Mahnken, Glenn E. 54
Mauney, David, A. 262
McConnell, R.A. 61
McPheat, J.G. 18
Mehdizadeb, M. 23
Melham, G.A. 185, 203
Mercex, W.P.M. 152
Molavi, Kamyar. 80
Moore, David A. 83
Moore, P.E. 244
Morgan, Richard S. 225
Myers, Phillip M. 225

N

Naka, Yuji 37
Négyesi, György 237

P

Pape, Ronald 25
Papp, Adrian and R. 231
Paula, Henrique 219
Petersen, Ronald L. 72
Pitbaldo, Robin 69
Prine, B.A. 121

R

Roberts, Michael 219
Roehner, Richard 72
Rook, Michael T. 54
Rusznák, István 237

S

Sallay, Péter 237
Scheffler, N.E. 121
Schmidt, E.G. 262
Schumacher, Robert 69
Schulze, Lawerence J.H. 140
Selmer-Olsen, Stale 69
Senecal, Joseph A. 50
Shipman, John S. 165
Simpson, A.R. 18
Singh, Jasbir 43, 255
Siwek, Richard 244
Steiff, Artur. 57

T

Tersmeden, Knut 110
Tonhein, Jan 101
Tveit, Reidar 101

V

van den Berg, A.C. 152

W

Waller, Al 219
Watson, Kevin D. 72
Weinspach, Paul-Michael 57
Wieczorek, Gary M. 160

Z

Zoghlami, H. 231

Titles

A

Acoustic Emission On-Line Monitoring of the Ammonia Plant. 101
Advancing Inherent Safety into Methodology. 86
Application of Menu Design Principals to an Energy Management System, An. 140

B

Batch Runaway Reaction Relief: Re-Evaluation of "Credible" Scenario. 255

C

Carbon Disulfide Incidents During Viscose Rayon Processing. 251
Case Histories of Two Incidents Following Process Safety Reviews 170
Consequence Modeling for the EPA Risk Management Plan (RMP). 1

D

Decomposition of Thermally Unstable Chemicals in Solvents. 198
Design Practice for Extinguishing Barrier Systems. 244
Detailed Method for Estimating Mixture Flammability Limits Using Chemical Equilibruim, A. 203

E

Expansion Bellows Failure of Synthesis Loop Hot Heat Exchanger. 105
Explosion Blast Prediction Model in the Revised CPR 14E (Yellow Book), The. 152
Explosion Protection of Pipe Systems Conveying Combustible Dusts or Flammable Gases. 50

F

Fully Quantitative Predictive Maintenance/Inspection Planning Optimization for Chemical Process Plant Components. 262

H

Hot Work on a Steam Condenser Ignites a Titanium Tube Bundle Fire: A Case History. 54

I

Increased Fire Hazard of N-heterocyclic Compounds Substituted by S-containing Groups. 237
Improved Safety Through Distributed Manufacturing of Hazardous Chemicals. 23

L

LFL Estimates for Crude Oil Vapors from Relief Tank Vents. 72

M

Management of Change: A Pilot Plant Application. 160
Management of Chemical Plants Using Chemical Compatibility Information. 8
Measuring Inherent Safety Health and Environmental Characreristics Early in Process Development. 78
Mechanism and Kinetics of Decomposition from Isothermal DSC Data:Development and Application. 94

N

Next Generation Risk Management. 69
No Good Deed Goes Unpunished:Case Studies of Incidents and Potential Incidents Caused By Protective Systems. 132

O

Out-Of-Loop Performance Problems and the Use of Intermediate Levels of Automation for Improved Control System Functioning and Safety. 126
Overview of SuperChems for DIERS: A Program for Emergency Relief System and Effluent Handling Designs. 185

P

Potential of Sufficent Static Electricity for Ignition During Tanker Washing, The. 25
Pressure Relief Systems:The Sensible Approach to Verification and Documentation. 6
Pressure Relief With Highly Viscius Fluids. 57

Q

QRA of Chemical Reaction Systems: The State of Practice. . . 219
Quantitative Approach to Determination of NFPA Reactivity Hazard Rating Parameters, A. 121

R

Reaction Calorimetry for Process Development: Recent Advances. 43
Replacement of an Ammonia Storage Tank. 165
Risk Analysis of a Chloralkali Industry Situated in a Populated Area Using the Software Package MAXCRED-II. 172
Risk Based Package Design. 14
Role of the Two-Phase Scenarios Concept in the Matrix Relative risk Ranking Procedure. 117

S

Safe Design of a Thermally Unstable Solid Storafge Container: Natural Convection Effects on Thermal Ignition. 231
Severe Pressure Surges in a Simple Pump-Pipeline-Valve System. 18
Study on Safety Evaluation and Operational Design for Startup. 37
Sucessful Use of Stainless Steels in the Nitrogen-Based Fertilizer Plants. 110

T

Toxic Hazard Reduction With Passsive Mitigation Systems. . . 225
Trading Cost Against Safety: The Structure of People;s Beliefs. 89

U

Use of Slam Shut Valves on LCA Plants, The. 61
Using the CCPS Guidelines for Chemical Transportation Risk Analysis. 32
Use of Ranking Matrix and Recommendation Prioritization System for Process Hazard Analysis Studies, The. 83
Utilize Plant Data from Emergency Relief Events to Design Methods: A Proposal to the AIChE DIERS Users Group. 147

V

Viscosity Correction Factor for Safety Relief Valves. 80

Subjects

A

Ammonia
- plants. . . . 101
- storage tank. . . . 165

Automation, intermediate levels of. . . . 126

B

Barrier systems, extinguishing 244
Batch runaway reaction relief 255

C

Carbon disulfide incidents 251
Center for Chemical Process Safety (CCPS). . . . 32
Chemical(s)
- compatability information 8
- equilibrium, using 203
- hazardous, manufacturing of 23
- plants, management of 8
- process plant components 262
- reaction systems 219
- thermally unstable 198

Chloralkali industry 172
Combustible, dusts 50
Components, chemical process plant 262
Control system functioning 126
Crude oil vapors 72

D

Decomposition
- kinetics of 94
- of thermally unstable chemicals 198

Design
- of a thermally unstable solid storage container 231
- operational 37
- practice for extinguishing barrier systems 244
- principles, application of 140
- risk-based package 14

Design Institute for Emergency Relief Systems (DIERS) . . . 185
Dusts, combustible 50

E

Effluent handling designs 185
Electricity, static 25
Emergency relief system program 198
Energy management system 140
Environmental Protection Agency (EPA) 1
Expansion bellews failure 105
Explosion
- blast prediction model 152
- protection 50

F

Fire hazard 237
Flammable gases 50
Flammability limits, method for estimating 203
Fluids, viscous 57

G

Gases, flammable 50

H

Hazard
- analysis studies 83
- rating 121
- reduction 225

Hazardous chemicals 23
Heat exchanger, hot 105

I

Incidents
- carbon disulfide 251
- case studies. . . . 132, 170

Inherent Safety. . . . 78, 86
Isothermal DSC data 94

K

Kinetics of decomposition 94

M

Maintenance/inspection planning 262
Mitigation systems 225

N

NFPA reactivity hazard rating procedures 121
N-heterocyclic compounds 237
NII Secondary reformer exit 101
Nitrogen-based fertilizer plants 110

O

Oil vapors, crude 72
Operational design for startup 37

P

Passive mitigation systems 225
Pilot plant 160
Pipe systems, explosion protection for 50
Plant(s)
- ammonia. . . . 101
- data, utilizing. . . . 147
- fertilizer, nitrogen-based. . . . 110
- LCA 61
- pilot. . . . 160
- process 262

Pressure
- relief 6, 57
- surges, in a pump-pumpline-valve system 18

Process
- development. . . . 43, 78
- hazard analysis studies 83

Pump-pumpline-valve system 18

Q

Quantitative risk assessement (QRA) 219

R

Ranking matrix. . . . 83, 117
Reaction calorimetry for process development 43
Relief
- pressure. . . . 6, 57
- tank vents 72
- valves 80

Risk
- analysis 172

assessment (QRA) 219
based package design 14
Management Plan (RMP) 1
management, next generation 69
ranking procedure 117
RMP (Risk Management Plan) 1
S
Safety
control system functioning and 126
inherent 78, 86
evaluation study 37
relief valves 80
reviews 170
through manufacturing of hazardous chemicals 23
trading cost against 89
Secondary reformer exit 101
Software package, MAXCRED-II 172
Solvents, thermally unstable chemicals in 198
Stainless steels 110
Startup, operational design for 37
Static electricity for ignition 25
Storage container, thermally unsafe 231
Synthesis loop heat exchanger 105
T
Tank vents, relief 72
Thermal ignition 231
Toxic hazard reduction 225
Tanker washing, ignition during 25
V
Valves
slam shut 61
Vapors, crude oil 72
Viscose rayon processing 251
Viscous
fluids 57